



# Engineering Industry Sector Guide

The Coronavirus (COVID-19) pandemic continues to grow and we are all making significant adjustments to our working and home lives in response to government guidance. Our primary priority is to ensure we protect the well-being and safety of our staff, and you, our Service leavers. We have been closely monitoring the situation and working with the MOD and they have now confirmed a policy to suspend face to face activity until 30th April 2020, in order to follow advice on social distancing. This policy will be reviewed regularly and will be adjusted in line with advice from the Government.

Please be assured that despite this, CTP staff remain fully operational to work remotely, are contactable, and very much still here to support you. Please email your usual point of contact if you require any help with your resettlement. CTP are continuing to provide virtual events where possible please follow this link for a full list of our events - [CTP Events](#)

We have created some FAQs to address questions you may have – please click the green button below.

[READ FAQs](#)

Points expressed in this guide may be altered with no notice due to conditions associated with the COVID-19 pandemic.

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## Sector Guide – Overview of the Engineering Sector

Nearly 5.7 million employees work in engineering enterprises in the UK, representing just over 19% of total UK employment in all registered enterprises. As a proportion of total employment, this has remained relatively consistent for the last three years.

It has been forecast that engineering employers will need to recruit 265,000 skilled entrants annually to meet demand for engineering enterprises through to 2024, this figure has increased drastically from last year's forecast of 182,00.

It is estimated that engineering contributed £486 billion to UK GDP in 2015 – around 26% of the total and representing 2.3% growth since 2014. Source:

[http://www.engineeringuk.com/media/1356/enguk\\_report\\_2017\\_synopsis.pdf](http://www.engineeringuk.com/media/1356/enguk_report_2017_synopsis.pdf)

Average salaries have increased in all of the separate sectors covered by the survey, however the renewables and nuclear sectors have seen the most marked uplift (£58,695) and have taken the top spot for the first time in the survey's history, an indication that engineers working in these sectors are becoming increasingly critical to the UK economy.

The Engineer Salary Survey 2019 –. The average salary for all engineers in 2019 is £51,253, an increase on last year's average of £47,896, although this may be partly the result of a smaller survey size.

The full survey results can and report be viewed here: <https://www.theengineer.co.uk/engineering-pay-2019-salary-survey/>

Who are the major employers?



SIEMENS

THALES



CAF

AIRBUS



e.on



## Who are the major employers?



**Jaguar Land Rover** JLR work closely with CTP to promote vacancies to Service Leavers and regularly attend events. JLR are seeking staff within product development which includes research, engineering, project management, quality and design. There are also engineering and supervisory roles in developing and manufacturing the motor engines, as well as various skilled trade roles, quality, logistics and engineering in the manufacture of the whole car.



**Honda** Opened in 1985 and currently employing over 3,300 Associates, the plant in Swindon is Honda of the UK Manufacturing Ltd (HUM). Producing around 120,000 cars a year, it is the global production hub for the five door Honda Civic models. They also make the CRV and a range of diesel and petrol engines for other factories around the world. HUM is Honda's flagship production facility in Europe, playing an important part of the global manufacturing operations. The company recently announced a £200 million investment in HUM to develop the facility into the global production and plan to attract new people to the team <http://www.hondamanufacturingcareers.co.uk/index.php>



**Nissan** Currently employs more than 4500 staff and the plant in Sunderland was extended in late 2015 to accommodate production of the Infinity Q30



**BMW** employs 19,000 staff in the UK manufacturing and across the dealer network. It has also seen major increase in sales in the past couple of years resulting in more apprenticeship and experienced engineer roles including the mini plant based in Swindon and the Rolls Royce site in Chichester. <https://www.bmwgroup.com/en/careers.html>



**Airbus** directly employs 13,000 staff in the UK and many more through the supply chain. Airbus Wing Work employs staff at Filton working on the design, engineering and support of Airbus wings, fuel systems and landing gear. Assembly takes place at the Broughton site which recruits for manufacturing and engineering roles. <http://www.airbus.com/work/>



**Boeing** is a major manufacturer of commercial jetliners. Boeing Defence, Space and Security produce communication systems for military and government customers. Boeing directly employs 1700 staff throughout the UK, along with many more subcontractor staff. Boeing recruit for a wide variety of roles including design, planning, and service engineers, systems engineers, quality and project managers. <https://jobs.boeing.com/category/engineering-jobs/185/11125/1>



**GKN Aerospace** employs around 12,000 staff and their Bristol site produces parts for both Airbus and Boeing. They also operate sites in Portsmouth, Isle of Wight and Yeovil. <http://www.gkn.com/aerospace/careers/Pages/default.aspx>



**Rolls Royce** employs 16,000 staff in the UK, manufacturing engines for the civil and defence market and the growing nuclear business. Rolls Royce recruit engineers from all disciplines of electrical, electronic, instrumentation and sensor engineering to specify, design, develop, test and support control, instrumentation and protection systems and equipment. <http://www.rolls-royce.com/careers.aspx>



**BAE Systems** design and manufacture fixed wing combat and training aircraft for the UK and overseas defence market, and are currently working on the Typhoon fleet. They have ongoing recruitment requirements across sites, mainly in Warton, and RAF Conningsby for engineers across a range of disciplines. <https://www.ctp.org.uk/job-finding/directory/bae-systems/latest-jobs>

## Skills, Qualifications & Training

### Skills and Qualifications

Many Service leavers seeking employment within engineering will have completed an engineering apprenticeship or have some form of relevant experience gained through the Armed Forces. This experience is often accredited and most Service leavers will have a civilian recognised qualification. The IET and IMECHE (see below) will assist Service personnel in identifying how their experience relates to civilian qualifications and work towards professional recognition awards.

There are opportunities for Service leavers without an engineering background to enter the industry, through an apprenticeship scheme with an Employer, through a local college, or alternatively through short resettlement courses which provide recognised civilian qualifications. For those without industry experience, it is always recommended that a period of work attachment be completed with a potential employer, in order to put into practice the skills gained during training.

Organisations who can assist with identifying training routes and professional recognition include:

**SEMTA** <http://www.semta.org.uk/careers>

The Sector Skills Council for Science, Engineering and Manufacturing Technologies are an Employer led organisation who work with companies to identify skills gaps and opportunities to increase productivity, particularly through training and apprenticeships

**IET** <http://www.theiet.org/armed-forces/>

The Institution of Engineering and Technology provide advice and guidance to those in the industry and those considering a career within engineering. The IET have a membership scheme and Service personnel can be advised on career progression as well as relevant qualifications and professional recognition in the industry.

**IMechE** <http://www.imeche.org/membership-registration/become-a-member/armed-forces-and-mod>

The Institution of Mechanical Engineers host workshops, seminars and various events throughout the UK and also offer a membership scheme with professional recognition routes to become an Engineering Technician or Incorporated or Chartered Engineer.

**SoE** <http://www.soe.org.uk/join-soe/case-studies/engineers-in-the-armed-forces/>

Society of Operations Engineers (SOE) represents over 3,000 individuals employed within the Armed Forces. They Support engineering professionals and provide training programmes across the Army, RAF and Royal Navy



## Skills, Qualifications & Training

### Training

#### **A Craftsperson or Advanced Craftsperson**

Will normally have completed an engineering apprenticeship and will undertake day to day semi-skilled maintenance activities. Individuals would have training in electrical or mechanical crafts, control and instrumentation or plant and process.

This is likely to include an Engineering Technician / Leading Engineering Technician / Marine Engineering Mechanic from the Royal Navy; Aircraft Technician/SAC/Weapon Technician or General Technician/Cpl from the RAF or Lance Corporal/Craftsman REME/Sapper from the Army.

#### **An Engineer**

Will generally have an HND or Foundation Degree in an Engineering discipline, and a Health and Safety qualification such as IOSH.

The engineer will be responsible for engineering maintenance and may be a technical specialist. They would be responsible for day to day maintenance and also overhauls, projects and modifications. They would be a logical / analytical thinker with problem solving skills, and may have some finance or budget responsibilities.

This is likely to include Chief Petty Officer /Warrant Officer Engineering Technicians from the Royal Navy; Chief Technician / Flight Sergeant /Warrant Officer from the RAF or a Staff Sergeant or Warrant Officer from the Army.

#### **An Engineering Manager**

Will often have an Engineering Degree, a substantial Health and Safety qualification such as NEBOSH and a Business Management qualification.

## CTP Training

Below is a selection of the many courses that CTP has to offer for this industry, please contact your career Consultant or the Central Booking and Information Centre for more information.

**CIV 02894 456200 or Mil: 9491 56200**

**Email: [coursebookings@ctp.org.uk](mailto:coursebookings@ctp.org.uk)**

## Engineering Based Courses

For a full list please follow the link <https://www.ctp.org.uk/resettlement-training/>

- [Domestic Electrical Installation Full Scope](#)
- [IEE 18th Edition Wiring Regulations](#)
- [Level 3 Award in Inspection and Testing](#) – 8 days
- [L3 Diploma in Gas Utilisation and ACS Assessments Phase](#) - 35 Days + work attachment
- [Programmable Logic Controllers](#)
- [Air Conditioning & Refrigeration Technology](#)



CTP also offer a range of related training courses relevant to certain Engineering Management positions:

- [Prince 2](#) – 5 days
- [APM Project Management](#) – 10 days
- [NEBOSH General Certificate](#) – 15 days
- [NEBOSH Environmental Management](#) – 6 days
- Lean Six Sigma (Green Belt Foundation)- 5 days
- NEBOSH General Certificate- 15 days
- Finance for non-Financial Managers- 2 days
- Potential Facilities Manager- 10 days
- BIFM Facilities Management L4 Award- 5 days

There are several CTP Preferred Suppliers who also offer relevant training for those considering trades such as HVAC, Plumbing, Gas and Electrical. Other suppliers may provide training towards a career in renewables, railway, signalling, locksmiths, marine engineering and oil and gas. <http://www.ctp.org.uk/preferred-suppliers>

## COVID – 19 Virtual Training Option

### Virtual Classrooms Becoming A Reality!



During this COVID – 19 Pandemic, CTP have been working hard to ensure that Service leavers can access resettlement services in the safest possible way and we have introduced Virtual Classrooms to some of our existing Vocational Training courses.

A course delivered in a Virtual Classroom is where learners log into an online platform, from their home or safe location and they can see and interact with a live trainer who is delivering the course in the same way as it would be in the classroom.

End of course examinations are taken online and learners will be required to have a webcam, microphone and speaker/headset in order to interact fully.

Those who have already booked places on our face to face courses between now and 30 April have been offered the opportunity to switch onto our Virtual Classroom courses, and we will be opening up bookings for our May courses shortly. For further information on courses and start dates please visit our website <https://www.ctp.org.uk/resettlement-training/find-a-course?department=general-management>

To book your place please contact CBIC on 01252 954007

Please read through our **Frequently Asked Questions** which answers many of your queries regarding training during the current COVID -19 situation

**New Vocational Training course dates to September 2021 are available on our website!**

CTP are pleased to advise that our vocational training course dates are now available for booking for courses commencing up to September 2021!

We have added additional availability to our most high demand courses, and continue to offer a range of highly subsidised contract funded training, providing excellent value for money.

Course dates, locations and prices can be found on our website, along with detailed descriptions and downloadable factsheets.

To make a booking for any of our courses, please call our Course Bookings & Information Centre CBIC on 01252 954007.

## News and Trends

### VentilatorChallengeUK unites engineering to deliver Covid-19 ventilators

On March 16, 2020, government called on the UK's engineers to make up the anticipated shortfall in ventilators by producing and assembling the life-saving devices.

### Spin capacitor cuts heats and power

In what is claimed to be a world first, physicists have developed a so-called spin capacitor that could herald new electronics that require less power and generate less heat.

### Single-step process could improve access to clean water

In an advance that could improve universal access to clean water, scientists in Japan have improved the ability of nanocarbons to remove toxic heavy metal ions from water in a single-step process.

### Subsea IoT enabled by light and energy transfer

Researchers in Saudi Arabia are advancing the internet of of underwater things – IoUT – with a system that simultaneously transmits light and energy to underwater energy devices.

### MOD selects autonomous ground vehicles for resupply

Part of Project Theseus, which is exploring the use of autonomous vehicles for last mile battlefield logistics, the £5m purchase consists of two separate contracts and builds on Dstl's Autonomous 'Last Mile' Challenge. Three all-terrain Viking 6x6 wheeled UGVs will be delivered by Horiba Mira under a £2.3m deal. Arriving in summer 2020, the Vikings will each be capable of transporting 750kg of supplies to the frontlines.

### UK led team trials pop up drone communications network

A pop-up communications network that uses a drone as a temporary base station has been demonstrated by a University of Surrey led research team.

### Overnight charging key to unlocking EV market, says report

Nearly 90 per cent of non-EV owners would be encouraged to buy one if they had access to overnight charging, according to a new report.

## Latest Vacancy Information: June 2020



Job ID		Location	Closing Date
<u>324006</u>	Engineering Support Manager	Yeovil	10/06/2020
<u>328467</u>	Engineering Manager - Shared Infrastructure Delivery	South East	10/06/2020
<u>328715</u>	Civil Engineering Group Leader	Gloucester	12/06/2020
<u>328434</u>	Systems Engineering Lead - Apache	Yeovil	16/06/2020
<u>319426</u>	Design Authority - Systems Engineering (Principal Engineer)	South East	16/06/2020
<u>328593</u>	Project Engineering Lead - Antenna	Scotland	25/06/2020
<u>310109</u>	Shift Engineering Team Leader	Wigan	01/07/2020
Remember to check <a href="#">RightJob</a> regularly for new opportunities			

## Useful Links

<http://www.theengineer.co.uk>

<http://www.energyvoice.com>

<http://www.engineeringuk.com>

<http://www.ecia.co.uk>

<http://careers.ecitb.org.uk>

<http://www.ctp.org.uk/job-finding/directory>

<https://nationalcareersservice.direct.gov.uk/advice/planning/jobfamily/pages/manufacturingengineering.aspx>